Mixture

Mixtures are formed by mixing physically (not chemically) substances together. The substances in a mixture can be present in any amount. The substances in a mixture retain their own properties. The parts of a mixture can be separated out by simple physical means.

Mixtures can be categorized as heterogenous or homogeneous. Heterogenous mixtures do not appear to be the same throughout. Concrete, conglomerate rock, as well as oil and vinegar are all heterogeneous mixtures. The particles are large enough to be seen and can be separated from the mixture.

The following are examples of mixtures.

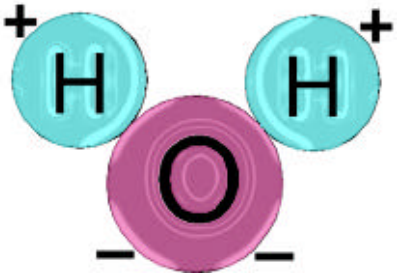

Homogeneous mixtures are very well mixed. Solutions are homogeneous mixtures. In a solution one substance is dissolved in another. The particles in a solution are atoms, ions, or molecules. The particles are obviously too small to be seen and will not separate out on standing. Solutions have two parts.

SOLVENT- THE SUBSTANCE WHICH DOES THE DISSOLVING

SOLUTE- THE SUBSTANCE WHICH GETS DISSOLVED

Water is a solvent which can dissolve thousands of substances. Water is often called the universal solvent because it dissolves so many materials. Substances (like oil) which do not dissolve in water are called insoluble.

A major property of water is that it is a polar molecule. This property is due to how the compound water forms. The oxygen end has a slight negative charge and the hydrogen end has a slight positive charge. The positive end of a water molecule is attracted to the negative end of another water molecule.



Other molecules which are polar are attracted to the ends of water molecules.

Two properties of water are explained by its polar nature. Cohesion is the property of water where water sticks to water. Adhesion is the property of water in which water sticks to other substances, like a bandaid adheres (sticks) to skin.

Print this page in Adobe Acrobat format. Get Acrobat Reader

Visit the Utah State 8th Grade Integrated Science Core Curriculum Page.
Updated August 7, 2000 by: Glen Westbroek

Science Home Page | Curriculum Home Page | Core Home Page | USOE Home Page

Copyright © by the Utah State Office of Education.